cut their prices to all customers to meet localized competition is an asymmetric burden that creates the danger of uneconomic bypass. Allowing ILECs full flexibility to compete against this bypass will lower the prices that IXCs pay for access and will contribute to the cost of maintaining the local exchange. If ILECs should be able to provide service on a contract basis, then it necessarily follows that they should be granted the right to offer more flexible forms of tariffed rates.

Because this type of competition currently exists and facilities are being built both by ILECs and competitors, this pricing flexibility is needed immediately. Given that network investments are long-lived, maintaining the competitive distortions that arise from asymmetric regulatory constraints will impose costs not only while the distortions are in place but throughout the life of the inefficient investments.

C. Benefits from Other Forms of Flexibility

While the precise benefits of other forms of flexibility might be harder to articulate, it is certainly plausible that they exist.

1. Quantity Discounts

There are good reasons to expect quantity discounts to be beneficial.[11] It is generally efficient for a consumer to purchase a good up to the point where the marginal valuation that he or she places on it equals the marginal production cost. If the market price equals marginal

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[11] When goods are produced with increasing returns to scale, then perfect competition is not possible because a linear price equal to marginal cost is not sufficient for providers to recover their average costs.

cost, as is the case in the perfect competition of economics textbooks, then the market price acts as an efficient signal to firms about how much to produce and to consumers about how much to buy. When the technology of production entails decreasing average costs because of increasing returns to scale in production, however, it is not feasible in the long run to have prices equal to marginal cost. With declining average costs, marginal cost is less than average cost. Thus, a constant price per unit (or a linear price) equal to marginal cost is not sustainable under such circumstances because it does not allow the firm to recover its total cost.

To obtain economic efficiency, it is not necessary for there to be a linear price equal to marginal cost. Rather, what matters is the incentives that customers and firms face on the margin. Thus, a non-linear pricing schedule with prices above marginal (and, indeed, average) costs for "inframarginal" units and marginal prices that are at or near marginal cost create efficient incentives on the margin. As a result, non-linear pricing schedules can increase efficiency even in a monopoly setting.[12]

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[12] An example illustrates the point. Suppose that production of a good has a fixed cost of 600 and an incremental cost of 1 per unit. Suppose there are 300 customers, each of whom would buy 1 unit at a price of $3, 2 units at a price of $2, and 3 units at a price of $1.25. If the firm is restricted to linear pricing, it sells 200 units and breaks even. If it charges $1.25, it sells 300 units and loses $125. In this case, $2.00 is a feasible linear price and $1.25 is not. Note, however, that it is efficient for the firm to produce 300 units instead of 200 because the marginal value that customers place on the third unit they purchase exceeds the marginal cost of producing. One way to accomplish the efficient outcome is to allow the firm to charge $2.00 each for the first unit and $1.25 for the third. This volume or quantity discount is an example of a non-linear pricing schedule and it results in a more efficient use of resources.

2. Incentives for Demand Increases

When the size of customers varies substantially, as is the case in the exchange access market, a common non-linear tariff cannot provide efficient incentives to all customers.[13] Providing discounts for customer-specific demand increases can result in low marginal prices and, therefore, efficient incentives for all customers.

3. Peak-load Pricing

The current pricing structure rules do not allow for peak-load pricing. To the extent that traffic-sensitive costs like switching can be diverted from peak to non-peak times, then the total cost of providing the network can be reduced and prices can as well.

4. Term Discounts

Long term contracts have a basis in cost. First, they can conserve on transactions cost. Second, a long term contract shifts risk from the seller to the buyer, and it is therefore appropriate for the buyer to receive compensation in the form of a lower price.[14]

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[13] A modification of the example in the previous note illustrates the point. Suppose that a third of the customers (Group 1) each value the first unit at $2 and the second at $1.25, that another third (Group 2) each value the first two units purchased at $2 each and the third at $1.25, and that the remaining third (Group 3) value the first three units at $2 and the third at $1.25. Now, if the firm charges $2.00 for the first two units and $1.25 for the third, then it sells one unit to Group 1 customers, 3 to Group 2 customers, and 4 to Group 3 customers. Its total quantity sold drops and the revenue does not cover the costs of production. A potential solution to this problem is to provide discounts to each customer for purchases that exceed its previous purchases. Thus, suppose that a linear price of $2 had been in place prior to reform. If so, Group 1 would have purchased 1 unit, Group 2 would have purchased 2, and Group 3 would have purchased 3. If each of them is then allowed to buy additional units at $1.25, then the efficient outcome will be attained.

[14] For a discussion of the potential benefits from non-linear pricing, see Robert D. Willig, "Pareto-Superior Nonlinear Outlay Schedules," *The Bell Journal of Economics*, vol. 9, 1978, pp. 56-69; and Robert B. Wilson,

(continued...)

V. THE RESERVATIONS ABOUT PRICING FLEXIBILITY - HOW IMPORTANT ARE THEY?

Given the powerful reasons to allow pricing flexibility, one might wonder why any conditions are being considered. The issues are somewhat different for geographic deaveraging than for other forms of flexibility, so this section discusses them separately.

A. Relationship between Geographic Deaveraging and Price Caps

1. The Concern

The concern with deaveraging of rates arises from the way price cap regulation is implemented. Price cap formulas constrain the prices of baskets of services. Within these baskets, reductions in the price of one good can be used to raise the price of another. If current price caps were to apply to an average of prices across geographic areas, then reductions in prices in competitive areas would make it possible to charge a higher price in less competitive areas. Two undesirable consequences would ensue. First, the regulations would provide an implicit subsidy to price reductions in competitive areas and thereby distort competition in favor of the ILECs. Second, there is no guarantee that price caps in high cost areas will be constrained to the levels that would prevail in a contestable market.

(...continued)

Nonlinear Pricing (Oxford: Oxford University Press) 1993. As Wilson points out and as is discussed below, there are anticompetitive uses of nonlinear pricing.

2. Need for Immediate Geographic Deaveraging

These concerns are real, but they do not justify holding up pricing flexibility. Such a decision implicitly makes the constraint of monopoly pricing the only consideration and places no value on the other legitimate objectives of access reform. In particular, it ignores the need to give ILECs a chance to recover their cost of service and it ignores the efficiency gains from having prices at levels that at least approximate costs.

Once competition in some areas eliminates the cross-subsidies needed to keep prices down in high cost areas, an ILEC no longer has a reasonable prospect of recovering its costs even on a forward-going basis. To ignore the need to establish rules that give ILECs a reasonable chance of making an adequate return during the transition to a new competitive and regulatory structure is simply irresponsible public policy. Moreover, in addition to preserving the inefficiencies from subsidized prices, the Commission runs the risk of having even higher prices in the future. If it disregards the need for revenue adequacy during the transition, it runs the risk that the Courts will decide that it must make good on this obligation. In that event, the likely solution will be some form of "communications tax," which will create economic inefficiency and will be borne by customers. It will be far better to provide for these revenue needs with more nearly efficient prices now than to pay for inefficiently low prices now with inefficiently high prices in the future.

It is a mistake to impose conditions on pricing flexibility to induce ILEC cooperation in opening the local exchange to competition.[15] Such a motive reflects a naive view of the regulatory and legal process. To be sure, ILECs probably do not welcome the requirement that they sell unbundled elements and can be expected to use whatever advocacy rights they have to justify higher price ceilings for unbundled elements. At the same time, however, competitors to the ILECs who wish to purchase unbundled elements have no interest in paying compensatory prices. Particularly given the FCC's positions that unbundled elements be priced at forward looking costs that might be determined with benchmark cost models, every potential competitor in the land should think that the FCC might hand it a great deal on unbundled elements. The day the 1996 Act was passed, one should have expected the proceedings in implementing it to be contentious and drawn-out, and the evidence since that time would tend to confirm those expectations. Imposing conditions on pricing flexibility to gain cooperation from the ILEC's naively assumes that they are the only parties trying to game the process.

Just as it is rational for competitors to the ILECs to seek a bargain in the purchase of unbundled elements, so too is it rational for them to seek to preserve inefficient constraints on ILEC pricing flexibility. Any condition that the FCC imposes on pricing flexibility provides an opportunity to use the regulatory process to avoid competition.

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[15] The FCC listed the value of gaining cooperation from ILECs in implementing the 1996 Act as a benefit of the market-based approach. See NPRM, ¶ 148.

B. Two-Part Tariffs

1. Concern 1: Sharing the Gains from Monopolization

While the interaction with price cap regulation is an issue for assessing other forms of pricing flexibility, there are likely other concerns that are more prominent. In particular, pricing flexibility can in principle result in one customer gaining a competitive advantage by obtaining better contractual terms than another. While such concerns sometimes arise out of a misplaced interest in protecting competitors rather than competition, they do have some legitimate justification in economic principles. When there are two complementary services that go into the production of a final service, then the firms selling one of the services have an inherent interest in competition in the provision of the other service provided that pricing is linear. Put in the current context, access provided by the ILECs and interexchange service provided by IXCs are complementary in the provision of long distance telephone service. With linear prices, the ILECs benefit from low prices by the IXCs and the IXCs benefit from low prices for exchange access. As a result, an ILEC has no strategic interest in helping an IXC gain market power. With non-linear prices, an ILEC could under some circumstances benefit from helping an IXC monopolize the long distance market. To understand the logic, suppose the ILEC can charge a "two-part tariff" for access. A two-part tariff entails an initial fee and then a constant price per unit. The size of the initial fee is constrained by the surplus that the IXC gets from selling long distance service. If a single company were to monopolize the long distance market, then the profits available for the IXC to extract would, under some circumstances, be greater than when there is competition in long distance service.

There are two cases that need to be considered.[16] One is when it is feasible to induce exit by some of the IXCs, as would be the case if the provision of long distance service entailed economies of scale but no sunk cost. If so, then providing one IXC with a sufficiently low marginal price could result in a market equilibrium in which competing IXCs could not attain the required scale to survive and would therefore exit. Once they did so, the ILEC might try to extract some or all of the remaining IXC's monopoly profits through a non-linear pricing schedule.

2. Why Concern 1 is Not Serious in the Market for Exchange Access

There are at least six reasons why this scenario is not a realistic concern. First, the major IXCs have substantial sunk costs. Short term losses will not cause them to exit, and the competitive alternatives to which they could resort in the long run makes even an eventual exit an unlikely consequence of attempts by an ILEC to drive them out. Second, there are different ILECs in different geographic areas. Whatever plausibility this scenario would have if there were a single ILEC is reduced to the extent that coordinated action by more than one ILEC would be necessary. Third, even if some IXCs did exit, the potential monopoly profits would be limited by continued regulation of long distance prices. Fourth, the profits that the ILECs could extract would be constrained not only by the profits of the IXC but also by the IXC's cost of bypass. By helping one IXC attain greater scale, the ILEC would simply increase the IXC's

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[16] The following discussion draws heavily on Michael D. Whinston, "Tying, Foreclosure, and Exclusion," *American Economic Review*, vol. 80 (1990), pp. 837-859.

profitability of bypass. Fifth, the ILEC would have trouble extracting whatever monopoly profits would arise because the ILEC would always have the option of resorting to the backstop protections (whether they be on final prices or input prices) provided by regulation. Sixth, any strategy that depended on inducing exit of a major IXC would likely result in antitrust litigation and the attending risk of being held liable for treble damages.

3. Concern 2: Raising Rivals' Costs

The second case that needs to be considered is when it is not feasible to induce the exit of one or more IXCs. In this case, there will of course be some price of access that the ILEC will want to charge each IXC. For simplicity, assume that there are two IXCs, labeled A and B, and let P_A and P_B be the linear prices that maximize the ILEC's profits. It may be that these prices are constrained by regulation so that no increase is legally possible. Provided that the regulations are caps, however, then it might happen that P_A and P_B are not constrained. By the definition of P_B, an increase in P_B would lower the profits of the ILEC. There would, however, generally be some increase in P_B that would increase the profits of IXC A by more than the reduction in the ILEC's profits. If so, a non-linear pricing schedule could be used to share IXC A's gains with the ILEC.

4. Why Concern 2 is not Serious in the Market for Exchange Access

Again, however, this scenario simply is not a serious concern in this case. First, it rests critically on the assumption that P_B is not constrained by regulation. Second, the mutual

profitability of the contract rests on an increase in the price charged to IXC B.[17] The ILEC has no inherent interest in carrying out this part of the contract. Of course, the ILEC and IXC A could make the terms provided to IXC B an explicit part of their agreement, but such a term would be a clear antitrust violation.

The scenarios described above fall under the general rubric of "raising rivals' costs" strategies. The economics literature now contains many theoretical models in which these strategies are both profitable and anticompetitive. The models are, however, built on stylized assumptions. The difficulty in basing policy on these models arises because they simply demonstrate the possibility that actions that could plausibly be competitive under some circumstances might be anticompetitive in others without providing any guidance as to the conditions under which anticompetitive effects might arise.

VI. CONCLUSION

In deciding whether to impose conditions on pricing flexibility, the FCC should weigh all of its legitimate objectives in pursuing access reform. It must take into account the costs from inefficient competitive outcomes and from inefficient pricing structures as well as its concern with constraining monopoly; and it must not confuse demands for protection from competitors with its desire to open the local exchange to efficient competition. Pricing flexibility promotes three of the FCC's objectives, and the only conflict with its objective in

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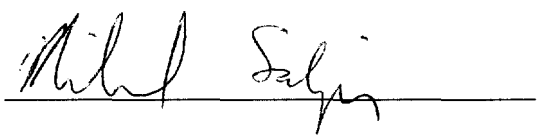
[17] See Oliver Hart and Jean Tirole, "Vertical Integration and Market Foreclosure," *Micro-Brookings Papers on Economic Activity*, 1990, pp. 205-276.

restraining monopoly arises because of its interaction with price cap regulations. The right solution to that problem is to amend the price cap regulations rather than to deny flexibility altogether.

Subscribed and Sworn this 13th day of February, 1997:



Michael A. Salinger

Qualifications of Professor Michael A. Salinger

Michael A. Salinger is Associate Professor of Economics at the Boston University School of Management, where he has been on the Faculty since 1990, and a Special Consultant to National Economic Research Associates (NERA). From 1982-1990, he was first an assistant professor and then an associate professor at the Columbia University Graduate School of Business. While on leave from Columbia from May, 1985 to August, 1986, he was a staff economist in the Bureau of Economics of the Federal Trade Commission.

Professor Salinger received his B.A., *magna cum laude* and with honors in economics, from Yale University in 1978. He received his Ph.D. in economics in 1982 from the Massachusetts Institute of Technology.

Professor Salinger's research has covered a wide variety of topics, including the structural determinants of corporate profitability, the competitive effects of vertical integration, the effects of bundling, and the statistical distribution of firm size and firm growth rates. His articles have appeared in such journals as *The Rand Journal of Economics*, *The Quarterly Journal of Economics*, *The Micro-Brookings Papers on Economic Activity*, *The Review of Economics and Statistics, The Journal of Industrial Economics, The Antitrust Bulletin*, and *Nature.* He is an associate editor of *The Journal of Industrial Economics.*

At Boston University (and previously at Columbia), Professor Salinger has taught courses in Managerial Economics, Microeconomics, Statistics, Econometrics, Industrial Organization, and the Economics of Strategic Planning.

Professor Salinger has testified before Congress about the competitive effects of vertical integration in the telecommunications industry, in Federal Court, and before the Copyright Arbitration Royalty Panel. In 1994, Turner Broadcasting submitted his analyses of the appropriate regulatory treatment of affiliate transactions in the implementation of cable television price regulations to the FCC.

APPENDIX E

12/12/95

Receipt 6

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Price Cap Performance Review for Local Exchange Carriers	)	CC Docket No. 94-1
	)	
	)	
Treatment of Operator Services Under Price Cap Regulation	)	CC Docket No. 93-124
	)	

COMMENTS OF GTE

GTE Service Corporation, on
behalf of its affiliated domestic
telephone operating companies

Gail L. Polivy
1850 M Street, N.W.
Suite 1200
Washington, DC 20036
(202) 463-5214

THEIR ATTORNEY

December 11, 1995

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SUMMARY

GTE endorses the proposals in the *Second Further Notice of Proposed Rulemaking* to improve the efficiency of the Local Exchange Carrier ("LEC") price cap plan. Reform of "baseline" price cap regulation will promote more efficient access prices, encourage innovation, increase the range of service options available to customers, deter inefficient entry and promote more efficient infrastructure investment by incumbents and entrants while still providing necessary protection against abuses by the LECs. GTE urges the Commission to adopt improvements in baseline price cap regulation, without regard to the extent of competition in those markets.

Because there is a critical need for immediate new services flexibility, GTE strongly supports the Commission's proposals to adopt changes to the new services rules in the context of the existing access structure in this proceeding. The Commission should immediately re-establish the presumption in favor of new services and eliminate restrictions which delay the introduction of new services.

Moreover, the Commission should adopt changes which would accommodate optional discounted services by establishing separate tariff standards for Alternative Pricing Plans. These plans incorporating volume and term discounts can improve the efficiency of access pricing and promote the development of new service options for customers.

GTE urges the Commission to permit LECs to employ contract-based tariffs, subject to appropriate safeguards, under baseline regulation. Specifically,

LEC contract-based tariffs should be permitted when the customer has issued a Request For Proposal and at least one provider other than the LEC must have responded to the Request. Contract-based pricing is needed to establish efficient entry signals. In addition, the current policy on Individual Case Basis rates should be revised to encourage new service offerings.

GTE supports the objective the *Second Notice* to eliminate the need for LECs to seek a waiver of Part 69 of the Commission's Rules in order to offer a new switched access service. New services should be allowed to proceed to the tariff review process as quickly as possible, with a minimum of delay and uncertainty. To accomplish this, GTE suggests a procedure that is simpler and more consistent with Section 7 of the Communications Act.

GTE also encourages the Commission to remove the limitations on downward pricing flexibility. The elimination of the lower service band limits would result in more efficient pricing and enhanced competition. Price reductions produce immediate, first-order benefits for access customers.

GTE strongly urges the Commission to permit LECs to extend zone pricing beyond the transport elements currently permitted. GTE proposes that the rules for baseline regulation should permit LECs generally to establish rates on a zone basis for certain switched elements, as well as for those special access transport services to which zones do not currently apply.

Moreover, GTE encourages the Commission to simplify the price cap structure in this proceeding. Access elements should be governed by a price cap mechanism that minimizes rate caps for specific elements and subcategory

banding constraints, except for zone density pricing elements. GTE recommends a simplified price cap basket structure that would simplify the existing plan by reducing the number of service categories and subindices and would accommodate zone pricing for most of the major access rate elements.

GTE commends the Commission for tentatively proposing a system of adaptive regulation for LEC interstate access services and encourages the Commission to establish the criteria to define the relevant market and the terms by which LECs can receive streamlined treatment. The mechanism for adaptive regulation should be simple and predictable; it should allow LECs to respond to competition; and it should ensure that customers in less competitive markets continue to be protected by price caps. The Commission should establish a mechanism removing relevant markets that are found to be competitive from price caps rather than moving services among baskets within price caps.

Finally, GTE strongly endorses proposals to reclassify those LEC services not already found to be nondominant. The criteria for the determination of nondominance should be similar to those used for streamlining. These criteria are consistent with those developed in the *Competitive Carrier* proceeding and rely on indicators which are simple to measure, and for which clear thresholds can be defined. A LEC found to be nondominant in a given market should be regulated in the same manner as any other nondominant carrier with which it must compete in that market.

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
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Treatment of Operator Services Under Price Cap Regulation	)	CC Docket No. 93-124
	)	

COMMENTS OF GTE

GTE Service Corporation ("GTE"), on behalf of its affiliated domestic telephone operating companies, submits the following comments regarding the *Second Further Notice of Proposed Rulemaking* (*"Second Notice"* or *"SFNPRM"*) in the Price Cap Performance Review for Local Exchange Carriers, FCC 95-393, released September 20, 1995.

GTE supports the Commission's efforts in this proceeding and urges the Commission to act expeditiously in resolving the issues addressed here. Price caps were instituted as a transitional regulatory scheme until the marketplace was competitive.[1] Now is the time to put in-place the criteria that will determine when the market is ready for streamlined regulation and nondominant reclassification of the price cap LECs. Delays in establishing these criteria would

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[1] *Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, 5 FCC Rcd 6786 (1990); *recon.*, 6 FCC Rcd 2637 (1991); *aff'd sub. nom., National Rural Telecom. Assn. v. FCC*, 988 F.2d 174 (D.C. Cir. 1993).

result in distorted entry signals and inefficient capital investment. The Commission should immediately remove the limitations on downward pricing flexibility, remove the Part 69 waiver requirements and simplify tariff procedures which delay the introduction of new switched access services, remove the asymmetric regulations that prohibit LECs from competing with other service providers for customer specific arrangements and establish a framework that defines relevant markets and the criteria under which LECs can receive streamlined and nondominant treatment.

INTRODUCTION

In the *Second Notice*, the FCC proposes changes to the LEC price cap plan to respond to the changing market for interstate access services and to allow market forces to achieve the Commission's public policy goals.[2] The *Second Notice* seeks comment on a three-step plan: 1) immediate action that could be taken for services under price cap regulation to allow greater pricing flexibility; 2) establishment of the criteria that should be applied to remove services from price caps and subject them to streamlined regulation; and 3) establishment of the criteria that would determine when a LEC could be reclassified as a nondominant carrier either in a geographical area, for certain services, or a combination of the two. The Commission (at ¶1) intends for this plan to benefit consumers by: 1) encouraging market-based prices that reflect

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[2] *SFNPRM at ¶1.*

the cost; 2) encouraging efficient investment and innovation; 3) encouraging competitive entry into the interstate access and related local exchange markets; and (4) permitting the regulation of noncompetitive markets in the most efficient and least intrusive way.

I. STREAMLINED REGULATION FOR BASELINE NEW SERVICES IS ESSENTIAL TO STIMULATE NEW OFFERINGS AND TO ADD TO CUSTOMER CHOICES.

A. The introduction of new services should be streamlined under baseline regulation.

The *Second Notice* (at ¶44) seeks to "eliminate unreasonable restrictions or undue delays that our current rules may impose on LECs' ability to introduce new offerings." GTE agrees that the current rules unreasonably restrict the introduction of new services and urges the Commission to act quickly to reduce these barriers.

The Communications Act of 1934, as amended ("the Act"), establishes a presumption in favor of new services and places the burden of proof on any party opposing a new service to demonstrate that the service is not in the public interest.[3] Notwithstanding this clear direction in the Act, the Commission's current rules do just the opposite – the rules place a heavy burden on a LEC that proposes a new service. The first obstacle faced by a LEC proposing a new

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[3] 47 U.S.C. §157.

switched access service is the need to either waive or modify the Part 69 rules.[4] The next obstacle is the need to fit the proposed service into the prescribed Part 69 structure, even though many new services do not fit readily into the structure established over ten years ago. Finally, even after a waiver has been obtained, the new service is subjected to a lengthy tariff review process.

Although this problem will be considered in the reform of the Part 69 structure itself in a broader access reform proceeding,[5] there is a critical need, as the Commission notes (at ¶69), for immediate new services flexibility. GTE strongly supports the Commission's attempts to encourage new services as soon as possible by adopting changes to the new services rules in the context of the existing access structure in this proceeding.

B. New services under baseline regulation should be presumed to be Track 2 services unless explicitly identified otherwise.

The *Second Notice* proposes (at ¶45) to classify new services either as "Track 1" or "Track 2." Track 1 services would have to comply with the current notice and cost support requirements while Track 2 services would be subject to reduced requirements. GTE agrees that simplification of the tariff review process for new services would benefit consumers. GTE recognizes that the Commission may be reluctant to reduce the level of scrutiny that it affords certain services. The proposed distinction between Track 1 and Track 2 therefore

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[4] This will be discussed *infra* in response to the proposals in the *Second Notice* to modify the waiver process.

[5] *SFNPRM* at ¶69.